

**IN THE CLAIMS:**

Please amend claims 1, 3, 6-8, and 13, and add new claims 16-19 as follows:

1. (Currently Amended) An offset measuring method for receiving signals from a radio base station and measuring a transmitting time offset of the radio base station, comprising the steps of:

calculating estimated values of the transmitting time offset based on signals received at a plurality of observation points with known positions or known distances from the radio base station; and

selecting a minimum from the estimated offset values to determine the minimum value as a measured value of the transmitting time offset of the radio base station,

wherein the transmitting time offset is a time difference between an official timing for sending out a signal and an actual timing when the signal is actually transmitted out from an antenna of the radio base station.

2. (Original) The offset measuring method according to claim 1, wherein the estimated offsets are each calculated from a time at which a particular signal is transmitted from the radio base station, a time at which the particular signal transmitted from the radio base station is received, and a distance between the radio base station and a receiving antenna.

3. (Currently Amended) [[The]] An offset measuring method ~~according to claim 1 for receiving signals from a radio base station and measuring a transmitting time offset of the radio base station, comprising the steps of:~~

calculating estimated values of the transmitting time offset based on signals received at a plurality of observation points; and

electing a minimum from the estimated offset values to determine the minimum value as a measured value of the transmitting time offset of the radio base station,

wherein an average of the estimated offsets measured at each of the observation locations multiple times is the estimated offset of the location.

4. (Original) The offset measuring method according to claim 1, wherein, if the received signal is not good, the signal is excluded from offset measuring.

5. (Original) The offset measuring method according to claim 1, wherein timing information used as a base of the offset measurement is generated from GPS satellites.
6. (Currently Amended) The offset measuring method according to claim 1, wherein timing information used as a base of the offset measurement is generated from a base station other than the base station ~~434~~ whose offset is to be measured.
7. (Currently Amended) An offset measuring apparatus which receives signals from a radio base station and which measures a transmitting time offset[[s]] of the radio base station, said offset measuring apparatus comprising:
  - offset estimating means which comprises a cellular receiver that receives, at a plurality of locations with known positions or known distances from the radio base station, signals transmitted from the radio base station;
  - a measuring unit for received timing that measures a received timing of a signal transmitted from said radio base station with reference to base clocks; [[and]]
  - an offset calculating unit that calculates estimated values of the transmitting time offset of said radio base station from the measured received timing; and
  - offset determining means for selecting a minimum of the estimated values of the transmitting time offset and for determining the selected minimum as a measured value of the transmitting time offset,
  - wherein the transmitting time offset is a time difference between an official timing for sending out the signal and an actual timing when the signal is actually transmitted out from an antenna of the radio base station.
8. (Currently Amended) [[The]] A offset measuring apparatus ~~according to claim 7 which receives signals from a radio base station and which measures a transmitting time offset of the radio base station, said offset measuring apparatus comprising:~~
  - offset estimating means which comprises a cellular receiver that receives, at a plurality of locations, signals transmitted from the radio base station;
  - a measuring unit for received timing that measures a received timing of a signal transmitted from said radio base station with reference to base clocks;
  - an offset calculating unit that calculates estimated values of the transmitting time

offset of said radio base station from the measured received timing; and  
offset determining means for selecting a minimum of the estimated values of the  
transmitting time offset and for determining the selected minimum as a measured value  
of the transmitting time offset,

wherein said offset measuring apparatus has a plurality of offset estimating means to receive the signals from the base station at a plurality of locations.

9. (Original) The offset measuring apparatus according to claim 8, wherein said offset estimating means calculates an average of the estimated values of transmitting time offset, which are measured multiple times, as the estimated offset of said offset estimating means.
10. (Original) The offset measuring apparatus according to claim 7, wherein said offset measuring means has a plurality of antennas to receive the signals from the radio base station at a plurality of locations.
11. (Original) The offset measuring apparatus according to claim 10, wherein said plurality of antennas are separated one another at a specified distance apart, further comprising an antenna selector that switches the antennas for connection to said receiving unit.
12. (Original) The offset measuring apparatus according to claim 10, wherein said antennas are separated one another at least 1/4 of a wavelength of the received signal.
13. (currently Amended) [[The]] A offset measuring apparatus ~~according to claim 10 which~~  
~~receives signals from a radio base station and which measures a transmitting time offset~~  
~~of the radio base station, said offset measuring apparatus comprising:~~  
offset estimating means which comprises a cellular receiver that receives, at a  
plurality of locations, signals transmitted from the radio base station;  
a measuring unit for received timing that measures a received timing of a signal  
transmitted from said radio base station with reference to base clocks;  
an offset calculating unit that calculates estimated values of the transmitting time  
offset of said radio base station from the measured received timing; and

offset determining means for selecting a minimum of the estimated values of the transmitting time offset and for determining the selected minimum as a measured value of the transmitting time offset,

wherein said offset measuring means has a plurality of antennas to receive the signals from the radio base station at a plurality of locations, and

wherein said offset estimating means uses each of said antennas to calculate an average of the estimated values of transmitting time offset, which are measured multiple times, as the estimated offset of the antenna.

14. (Original) The offset measuring apparatus according to claim 7, wherein said offset measuring device, which is movable, moves around multiple observation points to receive the signals from the base station and measures the received timings of the signals transmitted from the base station.
15. (Original) The offset measuring apparatus according to claim 7, further comprising a GPS receiver that generates the base clocks from signals received from a GPS satellite by said GPS receiver.
16. (New) The offset measuring method according to claim 1, wherein an average of the estimated offsets measured at each of the observation locations multiple times is the estimated offset of the location.
17. (New) The offset measuring apparatus according to claim 7, wherein said offset measuring apparatus has a plurality of offset estimating means to receive the signals from the base station at a plurality of locations.
18. (New) The offset measuring apparatus according to claim 8, wherein said offset estimating means calculates an average of the estimated values of transmitting time offset, which are measured multiple times, as the estimated offset of said offset estimating means.

19. (New) The offset measuring apparatus according to claim 10, wherein said offset estimating means uses each of said antennas to calculate an average of the estimated values of transmitting time offset, which are measured multiple times, as the estimated offset of the antenna.